CLAIMS

What is claimed is:

1. A signal bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for assigning storage, the method comprising the following operations:

receiving a request for storage, wherein the request includes a requested amount of storage space and connectivity information;

identifying storage that is accessible by a requesting device based on the connectivity information;

identifying all LUNs that are masked from all hosts, in the identified storage;

selecting at least one identified LUN; and

assigning the at least one selected LUN to the requesting device.

2. The signal bearing medium of claim 1, wherein the method further comprises the operation of transmitting assignment information to the requesting device.

3. The signal bearing medium of claim 1, wherein the operation of assigning the at least one selected LUN to the requesting device comprises making at least one method call to a CIM object.

4. The signal bearing medium of claim 1, wherein the operation of selecting at least one identified LUN comprises using a best fit algorithm.

5. The signal bearing medium of claim 1, wherein the method further comprises the operation of identifying all previously allocated LUNs in the storage that is identified as being accessible by the requesting device.

6. The signal bearing medium of claim 1, wherein the request further comprises a requested number of LUNs.

7. The signal bearing medium of claim 1, wherein the operations further comprise determining if the operation of assigning the at least one selected LUN to the requesting device is completed successfully, and if not, performing the operation of assigning at least one identified LUN that was not previously assigned.

8. The signal bearing medium of claim 7, wherein the operation of assigning at least one LUN that was not previously assigned comprises using a best fit algorithm.

9. The signal bearing medium of claim 1, wherein the operation of identifying storage that is accessible by the requesting device based on the connectivity information comprises identifying all storage devices in a SAN that are accessible by the requesting device.

10. The signal bearing medium of claim 1, wherein the operation of identifying storage that is accessible by the requesting device based on the connectivity information comprises identifying storage pools that are accessible by the requesting device.

11. The signal bearing medium of claim 1, wherein the requested amount of storage is in a storage pool specified in the request, and wherein the operation of identifying storage that is accessible by the requesting device based on the connectivity information comprises identifying storage in the storage pool specified in the request that is accessible by the requesting device.

12. The signal bearing medium of claim 1, wherein the method further comprises the operation of determining if the connectivity information is good, and if it is determined

that the connectivity information is not good, then the method further comprises the operation of failing the request.

13. The signal bearing medium of claim 1, wherein the requesting device is a host, and wherein the request is a request for a file system extension.

14. The signal bearing medium of claim 1, wherein the request originates as a manual request entered by a user.

15. The signal bearing medium of claim 1, wherein the request originates with an automated process associated with an external tool.

16. A signal bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for assigning storage to a requesting host, the method comprising the following operations:

receiving a request for storage, wherein the request includes a requested amount of storage space and connectivity information;

identifying storage that is accessible by the requesting host based on the connectivity information;

identifying all LUNs that are masked from all hosts, in the identified storage;

selecting at least one identified LUN using a best fit algorithm;

assigning the at least one selected LUN to the requesting host; and

transmitting assignment information to the requesting host.

17. A signal bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for assigning a resource to a requesting device, the method comprising the following operations:

receiving a request for a resource, wherein the request includes a requested quantity of the resource and connectivity information;

determining if the connectivity information is good;

identifying resources, that are accessible by the requesting device based on the connectivity information, and that are masked from all hosts;

selecting at least one identified resource, using a best fit algorithm; and

assigning the at least one selected resource to the requesting device.

18. A computing system, comprising:

a memory; and

a processing device coupled to the memory, wherein the processing device is programmed to perform operations for assigning storage to a requesting device, the operations comprising:

receiving a request for storage, wherein the request includes a requested amount of storage space and connectivity information;

identifying storage that is accessible by a requesting device based on the connectivity information;

identifying all LUNs that are masked from all hosts, in the identified storage;

selecting at least one identified LUN; and

assigning the at least one selected LUN to the requesting device.

19. A computing system, comprising:

means for receiving a request for storage, wherein the request includes a requested amount of storage space and connectivity information;

means for identifying storage that is accessible by a requesting device based on the connectivity information;

means for identifying all LUNs that are masked from all hosts, in the identified storage;

means for selecting at least one identified LUN; and

means for assigning the at least one selected LUN to the requesting device.

20. A method for assigning storage to a requesting device, comprising the following operations:

receiving a request for storage, wherein the request includes a requested amount of storage space and connectivity information;

identifying storage that is accessible by a requesting device based on the connectivity information;

identifying all LUNs that are masked from all hosts, in the identified storage;

selecting at least one identified LUN; and

assigning the at least one selected LUN to the requesting device.